

Dew Point: The Number That Tells You How It Feels

Name: _____

Date: _____

Class: _____

Read the lesson at myweatherrock.com/journal/explainers/dew-point (or the printed copy), then answer below.

Remember

The dew point is the temperature the air would need to cool to for its moisture to start condensing. It measures how much water vapor is actually in the air, which is what your skin cares about. Below the mid 50s feels dry, the 60s turn sticky, and anything in the 70s is tropical. Unlike relative humidity, dew point does not change its story every time the temperature moves.

Questions

1. Which number tells you how humid it actually feels outside?

- ☐ A. Relative humidity
- ☐ B. Dew point
- ☐ C. Barometric pressure

2. Why can a desert morning read 85 percent relative humidity and still feel dry?

- ☐ A. The sensor is wrong in deserts
- ☐ B. Cold air holds little moisture, so even near saturation there is not much water present
- ☐ C. Humidity works differently at altitude

3. The dew point is 75. What should you expect?

- ☐ A. Crisp and comfortable
- ☐ B. Tropical, oppressive air where sweat barely evaporates
- ☐ C. Guaranteed rain within the hour

4. The temperature climbs all afternoon while moisture stays the same. What happens to the two numbers?

- ☐ A. Both fall
- ☐ B. Relative humidity falls; dew point holds steady
- ☐ C. Dew point falls; humidity holds steady

5. Fog is most likely when:

- ☐ A. Temperature cools to within a few degrees of the dew point on a calm clear night
- ☐ B. Dew point drops suddenly at midday
- ☐ C. Wind picks up after sunset

In your own words

Explain why a 90 degree day in a desert can feel more comfortable than an 85 degree day on the coast, using the dew point.

Answer key (for the teacher)

1. Which number tells you how humid it actually feels outside?

B. Dew point — Dew point measures the actual moisture load. Relative humidity changes with temperature even when moisture does not.

2. Why can a desert morning read 85 percent relative humidity and still feel dry?

B. Cold air holds little moisture, so even near saturation there is not much water present — Relative humidity is relative to temperature. Cool desert dawn air is nearly saturated yet carries little total moisture, which the low dew point reveals.

3. The dew point is 75. What should you expect?

B. Tropical, oppressive air where sweat barely evaporates — Mid 70s dew points are swamp territory: the air is loaded. Storms become likelier, but nothing about it guarantees timing.

4. The temperature climbs all afternoon while moisture stays the same. What happens to the two numbers?

B. Relative humidity falls; dew point holds steady — Dew point tracks actual moisture, which did not change. Relative humidity drops because warmer air could hold more.

5. Fog is most likely when:

A. Temperature cools to within a few degrees of the dew point on a calm clear night — When air cools to its dew point, moisture condenses. Calm, clear nights radiate heat away fastest.